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## INTELLECTUAL EVOLUTION AND PRAGMATISM.

THIS essay was suggested by a delayed reading of *Pragmatism* by the late William James. The viewpoint is critical and psycho-analytical. The object is to point out factors of his problem to which Professor James seemed blind and to suggest some of the immediate causes of that blindness. As a result it is hoped that some contribution may be made toward the clarification of our thinking about evolution in the methods of thinking. Thus we also provide a rough scale for the classification of intellectual processes according to their evolutionary rank.

With this conception of mental evolution we can approach a better formulation of the goal toward which we are being impelled quite blindly. By becoming conscious of the evolutionary conditions and tendencies, as these involve intellectual growth, we insure a more perfect adjustment to the laws of our own character-development and accordingly we accelerate the natural growth by eliminating some impediments in the form of infantile emotional aversions.

This may also furnish a clue to a new history of philosophy. Where formerly men have written elaborate histories of the philosophic theories by which persons have explained and justified their temperamental attitudes toward the universe, the future historian of philosophy may devote himself more to a study of the genesis and growth of the temperament itself, which determines our philosophic

creed. That is to say, we are to prepare for a history of philosophy in its subjective aspect. With the statement of this program, which is pretentious as coming from an amateur philosopher, I will proceed with the task.

Professor James divides mankind roughly, and arbitrarily, into "tender-minded" and "tough-minded" groups according to predominant tendencies. Then he gives some characteristics of these groups. The "tender-minded" are intellectualistic, religious, free-willites, monistic and dogmatic, while the "tough-minded" are empiric, irreligious, deterministic, materialistic, sceptical, etc. The underlying causes for this divergence he believed to be temperamental differences. Others who recognize these differences of temperament have used the words introverted and extraverted, which I believe to be more illuminating as descriptive symbols for these characteristics.

#### TEMPERAMENT AS DETERMINANT.

Professor James assures us that: "Temperaments with their cravings and refusals do determine men's philosophies *and always will.*" This statement is strong and sweeping, including with the present also the infinite future, in its denial of evolutionary change in the relation of philosophy to temperament. Since our philosophies do change it would seem that the determining temperament must be undergoing corresponding changes. But why and how does our temperament change? Unfortunately James did not undertake to define temperament, nor to inform us about its determinants. If he had undertaken this he might have discovered that, instead of being the fundamental determinant of our philosophies, "temperament" is a mere symptom which reveals the degree of development which we have attained in our attitude toward, and assimilation of, experience in relation with objectives; and that "temperament" is but a collective name for reactions which

usually we do not understand, while our attitude toward relations with objectives is the real determinant of our philosophies. However James did not so conceive it.

I believe it evident from James's exclusion of relations with objectives, as a determinant of temperament, that he must have thought of temperament, if at all, as only a vague feeling-predisposition toward particular academic solutions of human problems, without duly searching for the determinants of these feeling-predispositions.

His statement that "temperaments" (in the above sense) "always will" control our philosophies, I believe to be autobiographical of James's most fundamental feeling-attitude of indifference or aversion to the check and justification of experience in relation with objectives. This conviction is confirmed by his endorsement of this quotation from Chesterton: "The question is not whether the theory of the cosmos affects matters, but whether, in the long view, anything else affects them." Here he comes perilously near to that idealist monism "that makes our universe by thinking it."

But in spite of his evident longing to remain consistent with these positions James is unable to do so. If temperaments do "and always will" determine men's philosophies, then, of course, it is absurdly futile to try to correct or otherwise interfere with the temperamental processes, except to secure a developmental change in temperament itself. Notwithstanding James's reluctance to accept the corrective of experience with objectives, these incorrigible and unavoidable relations have so far forced themselves into his consciousness that he is compelled to seek a compromise between these intruding objectives and his aversion to them, which, of course, resulted in a contradiction.

Although temperaments do "and always will" determine men's philosophies, yet James assures us, again speaking autobiographically, that "of whatever temperament a

professional philosopher is, he tries, when philosophizing, to sink the fact of his temperament." Why should any one make the least useless effort to overcome the unavoidable temperamental determination of his philosophy? Manifestly in James the explanation is his unwillingness to face his problem with objective realities, and so he was impelled to seek a compromise and was contented with mere verbalisms, which seem plausible only so long as considered dissociated from the real issues of his problem.

#### JAMES'S PROBLEM SUBJECTIVE.

Here we already have a view of James's internal conflict which also prompted the book *Pragmatism*. On the one side is the general primitive and infantile human tendency to ignore the limitations imposed on our impulses by our relation with objectives, whenever the realities interfere with the realization of our desires. On the other side are those experiences, dependent upon our relations with objectives, which ever force themselves upon our consciousness, and enforce the recognition of our limitations, or exact the price of pain for disobedience. It was this internal struggle, to protect the infantile impulses against the interference of the "noise of facts," that James was trying to end. He ended it by an evasion, and to justify that evasion he appropriated pragmatism as the "happy harmonizer."

When James undertook to rationalize his problem he made the very common error of ascribing his subjective conflict over relations with objectives, to a conflict with persons of different temperament. He thought of it as a contention with them over "methods," when all the time his real conflict was only subjective, as between his aversion to "facts" and the necessity of facing the "facts" themselves.

Surely Spencer and Haeckel have no quarrel with the pragmatic test of workability as a method for gauging the

relative accuracy of our conception of objectives. Indeed, their whole endeavor, as scientists, consisted in marshalling the greatest possible quantity of experiential "facts," in relation to which they applied the test of workability.

Where James would treat some infantile hypothesis as of the same value "so far forth," as an hypothesis checked by Spencer and Haeckel, I would seek an evolutionary standard of rating. This can be done only according to the number, variety and complexity of the conditions under which the pragmatic test is applied. To change the descriptive words and call these conditional truths "the truth so far forth," does not in the least help us toward judging between the relative approximations which our concepts attain as transcripts of reality. Neither does it solve any problem. It is only a begging of the question. However, to see, in their evolutionary rank, the conditions under which the test of workability is to be applied, is some help toward better and more accurate thinking.

#### CONDITIONS OF TEST OF WORKABILITY.

Professor James could not have mistaken the evasion of his problem for its solution, if his aversion to the check of experience in relation with objectives had not blinded his eyes to the real nature of the conflict between himself and such persons as see the issue either much less or much more clearly than did he.

For James, and all those having a similar internal conflict unaccompanied by any greater clarity of vision as to its essential nature, pragmatism came as a "happy harmonizer," not because it solved their problem but because it seemed to justify its evasion. Now they need not care about the relative accuracy of their concepts, as transcripts of reality, and need not be troubled about entertaining mutually contradictory ideas. For them now every concept

is true and every concept is false "so far forth." Evolution in relative accuracy is ignored.

At the outset, having repudiated evolution in our attitude toward experience in relation with objectives, or repudiated objectives altogether, there can be no varying degrees in the accuracy of our concepts. All controversy, conflict, contradiction concerning our acquaintance with objectives can be henceforth "so far forth" ignored. In such a system there can be "no prejudices," not even against the conclusion derived by consciously excluding a part of the pertinent evidence.

No; the conflict was not, as James conceived it, a conflict over the pragmatic method but a difference in attitude toward the "facts" of our experience in relation with objectives. In other words the essence of the controversy is not one over the pragmatic test of workability as such, but hinges on the conditions under which the test is to be applied; that is, a difference in aversion to or craving for, and in the multiplicity of such, in their application to the test of workability. Of course this evolutionary aspect of our relation with objectives, and objective conditions for the test of workability, can have no existence for those whose intraversion is so obsessing as to inhibit the recognition of any possibility of relations with or the existence of objectives.

Having now pointed out the how and the why of James's failure to see the true factors of his problem, we may proceed to an inquiry as to *what* he failed to see in consequence of his initial shortcoming. James's feeling-aversion to these experiences with objectives, which checked his temperamental predispositions, necessarily made him an inefficient observer of such experiences.

Perhaps there is need for having some statement as to what is meant by an inefficient observer. Superiority as an observer is measured by the relative minuteness and

multiplicity of the relations and aspects in which we discern an observed object. Let us apply this to James's observation of empiricists.

He says: "Never were there so many men of a decidedly empiricist proclivity in existence as there are at the present day." This should have suggested to him that the race may be undergoing an evolutionary change in its attitude toward the "facts" of experience in relation with objectives. It did not suggest this, manifestly because of his introversion, that is, an aversion to many of such "facts" and a consequent aversion to the recognition of empiricist cravings for them as a product of evolution later in the scale of development than was his own.

Notwithstanding this, James crudely saw and pointed out several degrees in empiricist evolution, only he saw those stages as dissociated phenomena and without clarity as to detail and without any evolutionary or causal elements of unification. It is because he did not give adequate attention to detail, nor see these evolutionary relations, nor any other element of unification, that I characterize him as a relatively inefficient observer. Let us now study the determinants of temperament which James overlooked.

#### TECHNIQUE OF MENTAL GROWTH.

The infant's pain from contact with a hot stove may produce something more than a mere effect. It may register in consciousness, and then synchronously and conjunctively there is registered some imagery of the associated stove. Let us call this association an affect-object. Perhaps later comes some understanding of the behavior which brought the unhappy result and this suggests some idea of causation.

Here the important thing to remember is that the affect-object is the registered, indissoluble entity of consciousness, which now becomes a new and independent determinant,



which modifies every subsequent result arising from new relations, especially those bearing some analogy to the hot stove.

Another illustration. Contemplate the status of a person suffering emotional disturbance because of sexual experience, or craving, with the mental associate of fear. The conflict is one between bodily craving, satisfied or unsatisfied, and a conflicting craving for social approval. Such repressed emotions produce involuntary, defensive or compensatory reaction. Hence such individuals, solely because of these existing affect-objects, react more intensely and differently than a more healthy-minded person. The former, as defenses to the self-accusation of what is called "conscience," must denounce with absurd extravagance all those ideas or acts which are associated with his own fault. The emotionally undisturbed, and so more healthy-minded person, has no similar incentive to intensity of moral judgment. The reason is that the idea, or act under observation, has a different group of associations in his existing affect-objects. Unlike the puritan, he has no unconscious or conscious associated self-accusing shamefulness to over-determine his defensive or compensatory reactions.

Some persons see a growth in the number of objects with which we have experience but fail to see the mechanism of their cohesion within the ego, and so remain unconscious of any evolutionary process in our attitude toward objectives, which attitude, derived from past experiences, might be the determinant of their attitude toward and of their valuation of further experience. In other words, they fail to see that part of the technique of our mental growth in virtue of which past experience in relation with objectives becomes the material for a conscious induction, supervising the experiential materials by which future intellectual growth is best to be achieved.

This conscious effort and guidance toward future intellectual evolution I conceive to be a late product, a growth to be achieved and desired. This neglected factor of our intellectual evolution I conceive to be a change from relatively great aversion to checks, through compromise, to a growing conscious craving for experience in relation with objectives, as a check and justification to our impulses. Finally we also experience a great craving for the most efficient method of dealing with such experiences, to the end of making our concepts always grow to a relatively closer approximation to a perfect transcript of reality.

#### ENERGIC MASS AS A DETERMINANT OF TEMPERAMENT.

I can believe that among new-born babes there is some difference in mere energetic quantity, conditioned upon prenatal nutrition, etc. Likewise, in each individual the energetic quantity available for objective relations is again conditioned upon the individual's size and the changing efficiency with which his system performs its nutritive and scavenger functions.

In infants and adults alike the energetic quantity is one determinant of the aggressiveness with which they attack the immediate environment, as well as a determinant of the pleasure-pain results derived therefrom. We have already agreed to call this related existence of ego-energy and objective, producing an affect, the affect-object. This newly established consequence of related existence, this affect-object, brings new conditions into the future reactions of the individual, just as water has reactions of its own, different from those of either oxygen or hydrogen, separately, or in mere mechanical mixture. These affect-objects now are a new determinant of our relative and varying craving or aversion, as to further experience with some or with all objectives. Thus we see that mere difference of energy-mass, by being one determining element of

the character of the earlier affect-object, indirectly and remotely become an important factor in determining whether we shall belong to the introverted or extraverted type.

But this is not the only factor. Immediately after parturition the human element of the infant's environment also begins to play a part. Parental and social demands create artificial lures and restraints, which tend to inhibit or compel a particular choice, and so become a determining factor toward the enlargement of some relations with some objectives and the curtailment of others.

Thus it may occur that an infant with much energy, but reared in a "sheltered" existence, may develop great capacity for explaining and justifying the defective mental products of excessive introverted attention. The resultant and relatively imperfect concepts of reality are projected into the outer world, and become determinants of conduct, in competition with the products of more extraverted attention. Alongside of this, the environment, in relation with the affect-objects already existing, may impose a fearful attitude and aversion to the check and justifications of new experience with objectives. Such persons may retain all through life the infantile dread of shock, the infantile tender-mindedness, that is, relative introversion, and the philosophic predispositions which it determines.

On the other hand, another infant with much less initial energy-mass but with more freedom, or more artificial coercion toward entering into relations with objectives, may develop great ability for comfortable and conscious adjustment with objectives and accordingly it develops a relatively intense craving for experience with objectives. Here then, in spite of relative deficiency of energetic mass, the infant develops into the tough-minded, the extraverted type. I think that Herbert Spencer was probably an example of this.

In these illustrations we see that temperament is our attitude toward experience in relation with objectives, and that both energy-mass and the number and character of the related objectives all become determinants of new affect-objects, which, by coordination with prior affect-objects, make that complex and distinctly individual *psyche*, which manifests itself in those reactions which we call character or temperament, and which differentiates us from our neighbor.

#### ENERGY-MASS A NEGATIVE FACTOR.

I believe that from these considerations it already appears that energetic quantity is chiefly a negative determinant of the character of our affect-objects. By placing limitations upon the possible success in our conflict with objectives, it imposes a negative barrier to our future choice and development, if we endure. Within the possibility of our efficient dealings with objectives, in the first instance our choice is again limited by the content of our most immediate environment. From this unavoidable contact we derive certain results of pleasure or pain, and so are formed the first unconsciously acquired feeling-associations, or emotions; that is, we achieve affect-objects, which by some more or less crude analogy, of the mechanism and influence of which we often and long remain quite unconscious, but which, nevertheless, determine our choice among the possible new relations to objectives. Later we become more or less aware of this mechanism and proceed more consciously to make choice of our relations with new objectives, by a more critical examination of the analogue.

As this evolution progresses we see that the immediate influence of energy-mass is growing relatively less important and more clearly negative, while the remote influences of energetic mass assume a positive character as choice determinant only by means of its related existence in acquired

affect-objects. So then, as we develop the more positive characteristics of temperament our determinants are relatively more dependent upon the quantity, variety and assimilation of our prior experience with objectives, that is, dependent upon the multiplicity, variety and complexity of our previously achieved affect-objects, and our consciousness of relative approaches to identity, in the analogies which influence the choosing process.

This is the important matter which escaped the attention of Professor James. It is also the most important and unfortunate characteristic of the infantile aversion to the extraverted type, and the intensity and scope of their aversion are the measure of their relative infantilism.

#### EVOLUTION A CHANGE IN EMPHASIS.

I believe it desirable to amplify this discussion still further. Manifestly, "temperament" has no meaning as mere static energy. It comes into significant existence only so far as resultant distinguishable activities are manifested. But this means that it has significance and classification only according to the objectives with which the energy has been associated in self-expression, that is, in acquired affect-objects. Manifestly the last of these associates is more controlled by the prior existing affect-objects and relatively less and more indirectly controlled by the mere factor of energetic mass. In other words, it is the related objectives, in the affect-objects, which on the positive side determine the differentials of temperament, and evolution is a change in emphasis to the objectively contributed factors of the psychic content.

While varying quantities of energy may determine initial differences and cause a fluctuating development in our attitude toward objectives, I know of no evidence which suggests that any mere experiential relations either directly or immediately produce any change in the very na-

ture or quality of the energy itself. The only traceable consequence seems to be an increasing consciousness of the behavior of things as they are. The affect-object produced by a particular experience, of course, may have its very existence dependent negatively upon the energy-mass at the time, but positively the results will be determined by the prior affect-objects to which it becomes related.

In the absence of evidence, the natural law of persistence of energy also impels to the conclusion that differences of temperamental manifestations are not explicable on the basis of any modification wrought by experience in the essential nature or quality of the human energy. Therefore differences in the manner of energy expenditure consist only in differences of object to which it attaches itself and in relation with which it reacts. As we increase our experience with objectives, both in number and variety, the positive aggressive factor of selective activity becomes more conspicuous and is seen more clearly to be determined by prior experience with objectives, that is, through the established affect-objects. Again it appears that intellectual evolution is mainly a growth toward greater extraversion, that is, a growing emphasis on and consciousness of the objective factors of our infinitely related existence.

#### MECHANISMS OF EMPIRIC GROWTH FROM INFANTILISM.

We are lured or repelled, according to an associated feeling-tone derived from some prior experience, which now, because of some more or less remote resemblance between the two objective situations, has become associated with the present reality. As we grow in the consciousness of the mental mechanism through which the past experience controls the present reaction, the more critical do we become as to the relative perfection of the analogy by which we accomplish the transference of the dynamic interest from past experience to the present choice or act.

Moreover, through the growth of such conscious use of critical capacity, there develops a conscious interest toward securing the most perfect analogy as a basis for the more efficient transference of the imperative impulses which determine "temperament" and action. The relatively greater satisfaction, and lessening of disappointments, which is obtainable through this growth toward more carefully and more consciously determined conduct, develops to a craving for increasing experiences with objectives and a more painstaking observation of the behavior in relations with them. This in turn requires, and so induces, the demand for a greater quantity and diversity of experiences and for the better understanding of these, especially in their more remotely related pleasure and pain affects.

All this again means that at this stage we grow away from infantilism, toward relative intellectual maturity, according to our craving for and achievement in the quantity, variety and complexity of our observed experience with objectives; that is, according to the complexity of our affect-objects, and according to the growth of scope, understanding and desire for conscious relations with objectives. I need hardly add that this is also the means and mechanism for becoming conscious of interobjective relations.

In the course of this growth there is an accompanying evolution in our consciousness of the advantages of a larger understanding, for a better adjustment to objectives, which understanding is attainable through the insistence upon a more perfect analogy, before the past experience controls the present action. Just to the extent that we become conscious of the advantages due to such a critical capacity, we also become conscious of its dependence upon the variety of past experiences, efficiently observed. Thus comes the growing craving for greater and ever growing variety of experience with objectives, as the foundation of more crit-

ical judgments and more perfect guidance in the solution of each successive problem.

Thus in each of us the assimilated and available mental materials, that is, the affect-objects coordinated at each particular moment, will determine our attitude toward possible new experiences with objectives, and determine the result. That control becomes more and more conscious and consciously imperative as we acquire a clearer understanding of its behavior and the advantages and the sources of its power.

#### TOWARD THE EVOLUTIONARY CLASSIFICATION.

Our capacity for conscious advantageous adjustment to the greater variety and complexity of objective conditions, therefore, is the practical measure of our intellectual development, which is high or low according to our craving for and assimilation of experience in relation with objectives. Therefore the growth of empiric tendency, which James saw, is a later product of evolution, and the intensity, scope and consciousness of its craving are measures of the extent of that evolution.

In other words, those the farthest evolved intellectually will insist upon the most exacting conditions for the application of the pragmatic test of workability. A relative introversion is relative infantilism; relative extraversion is relative intellectual maturity. If we are unconscious of these processes and their results we call them intuition or temperament. If we know them we call it reasoning, that is, more or less consciously supervised induction and deduction.

From this presentation of the psychic mechanism involved in our growth toward the greater objective determinants of our activities it appears that the pleasure-pain motive for action never ceases to operate, nor decreases in influence. The only change which evolution brings about



is in the associated objectives, relation to which gives this pleasure or pain, and, of course, varying degrees of the consciousness of these factors and processes. Our development is remote from the primitive, just to the extent that we consciously seek and succeed in taking account of more remote objects and relations, remote both as to time and space, as the foundation of our present pleasure and pain affects.

Now we come to the formulation of that which James saw partially and crudely as mere unrelated phenomena. I will amplify these factors as I see them, and will arrange them in what to me seems to be their evolutionary order. As we proceed it must be remembered that the aim is to *describe behavior*, not to *define things*. The subtle and ever changing flow of human energy and its associates, which in their related existence constitute the determinants and characteristics of human purposes, do not lend themselves to accurate definition. Consequently human language is here a relatively inefficient tool for expressing such mobile and subtle relationships. It follows that readers will get my meaning only in so far as they ignore the precise and usual meaning of the words I use, in an effort to understand the behavior of the forces I am trying to describe. Perhaps this should have been said before.

Having now noted generally the mechanism involved in intellectual evolution we proceed to a closer observation of the process with a view to discovering at least roughly distinguishable stages in the growth to maturer mental methods.

In the main, the mental mechanism of the sick mind is like that of the healthy mind, with paucity of materials and relative inefficiency of infantile states of development, in the use of available materials for checking the energies toward a comfortable adjustment to the environment. In both, desire creates phantasies of wishes fulfilled. In the

sick mind a subjective conflict intensifies some desires, as compensation for other losses. The intensification of desire tends to preclude the coordination of the resulting phantasy with those experiences in relation with objectives which are appropriate to the checking and correction of the phantasmal content, so as to make it a relatively closer approximation to a correct transcript of the realities of the individual's situation.

In this condition of sick-mindedness the check of related realities is painful, and the impulse to avoid this pain tends to induce the avoidance of new relations to environment. This limitation of experience and of coordination promotes a relative incapacity for distinguishing between the varying degrees of accuracy, as transcripts of objectives, which may inhere in the phantasy. Accordingly the phantasy bears little resemblance to the objective realities and is workable only under the fewest and most simple conditions for applying a pragmatic test, and yet the phantasy—hallucination—is accepted as a guide to conduct with the same assurance as accompanies the thoughts of another which would withstand all the known checks applicable in a test of workability.

In the absence of a relatively thorough verification of our concepts these probably bear relatively little resemblance to the related objectives. It is this which makes them symptoms of sickness and infantilisms and renders them unsafe as guides for conduct in a relatively complex environment. However, with the relatively few and simple affect-objects to which coordination is permitted they stand the pragmatic test. Thus, the phantasy of the sick mind achieves the importance of an hallucination—is accepted as an accurate duplicate of objective reality, in its control of the conduct of the sick person. In consequence such a one comes to grief by failing to achieve an efficient adjustment to his environment.

Obviously, in such cases the process of securing relief is first to remove the motives for avoiding relation to objectives, as by inducing some consciousness of the causes of suffering and perhaps some hope of psycho-analysis as a remedy. So the individual is developed to desire submission to the influences of more related objectives, insuring a better social adjustment, by reducing the disparity between the hallucinatory phantasy and the more accurate concept which might result from the check of relatively larger conscious relation to environment.

#### THE INFANTILE ATTITUDES TOWARD EXPERIENCE.

The infantile attitude toward facts which curb desires, like that of the sick mind, is one of aversion and a consequent tendency to disregard, evade or deny them. For all humans, in so far as they retain the infantile attitude toward objectives, it is true that desire creates the wish-fulfilling thought; thought creates the "facts," and the dogma, with little or no support in experience, is its formal assertion and the attached affect-value impels to corresponding action. This is the psychic mechanism of the unconscious infantile mode of satisfying the inherent lust for power, the craving as if for omnipotence.

In the creation myths we see the universe produced by thinking it. Even the human creative desire and thinking mind is objectivized and becomes the divine creating intelligence. It seems to me this is well portrayed by the Evangelist John, and will be apparent to all who discard the acquired literal significance of words to get an understanding of the feelings and thoughts which prompted their use. Let me thus present the words of John with their determining motive interpolated in brackets.

"In the beginning was the word [formulated desire] and the word [desire] was with God, and the word [desire] was God [the Creator]. The same was in the be-

ginning with God." Thus we see that creative desire beyond human realization is objectivized as God, the Creator. Now we understand in what sense "The Seed is the word [desire] of God," and from the seed of desire all things flow. The word is made flesh. Thus infantile attitudes toward "facts" may be retained alongside a highly developed casuistic ability and so produce those highly ingenious arguments in support of a transcendental idealism.

Some of the Christian Fathers carried this infantile aversion to "facts" to the highest degree of enthusiasm by making it the cardinal virtue of their faith and creed. Some gloried in the faith which enabled them to defy "facts" by the formula, "I believe it because it is impossible." A mystic acquaintance of mine, who conceives himself the subject of divine illumination, says: "The essence of illumination is that it shall transcend and contradict normal experiences." Indeed, how could it exhibit its higher authority if it only confirmed normal experiences?

#### JAMES'S ATTITUDE TOWARD EXPERIENCE.

Evidently, in spite of a strong disposition toward this idealist monism, James found some facts from which he could not escape and so he resolved to secure his peace by establishing a "cordial relation" with such facts, and he points out that if others can accept pragmatism they likewise can make a virtue of partly escaping and partly accepting a painful necessity. But our relation must not be too cordial with "facts"; not such broad and deep familiarity as would entirely destroy the transcendental mystical monism. Hence his conflicts, compromises and contradictions. His love of facts is not strong enough to enable James entirely to discard the infantile monism of his egocentric godhood. So he sticks to that and tries to accept some facts as well, and thus he becomes a pluralist and dualist as well as a monist.

This attitude of resignation for the acceptance of inescapable experience in relation with objectives, probably entitles James to enter the second class in our evolutionary scale. In this adolescent stage there is no clear and decisive preponderance of extraverted interest over the earlier introverted attention. For the want of this clear-visioned, conscious preponderance of interest, this is the stage of vacillation, evasion, compromise, confusion and contradiction. We try to hang on to the departing and grasp the coming ideals as well. We are all things to all men, free-will determinist, monistic pluralist, anthropomorphic pantheist, religious atheist, evolutionary absolutist and spiritualistic materialist, with pragmatism as the "happy harmonizer."

Let us have all the hostile facts from which we cannot escape and all the facts which seem to support our infantile, so-called *a priori* principles as well. This appears to be the attitude of James and his class of pragmatists.

The great mass of our "educated" humans probably belong in this early adolescent class as far as concerns the development of their attitude toward experience with objectives. In consequence, philosophically considered, they are as much fish as fowl.

#### EARLY MANHOOD ATTITUDE TOWARD FACTS.

And yet there is a considerable group of scientists who have grown to the early manhood stage of their development toward "facts." This class in our evolutionary attitude toward objectives and new affect-objects is represented by many of our scientific specialists, in the more exact physical sciences. Here, *at least in their special field of study* and in so far as they have the true scientific spirit and method, there is an aggressive quest for more intimate acquaintance with objective reality, a real craving for all the related experiential "facts," in order that every pre-

disposition and hypothesis may be subjected to the conscious check and justification of the widest possible range of relations with objectives, and the concepts thereby made to approach relatively nearer to an exact transcript of reality.

As the multiplicity of our affect-objects grows and our acquaintance with their interrelations and interdependences approaches a breadth as wide as the objectives themselves, we become more and more determined to ignore the infantile feeling-attitude or predispositions as relatively unsafe guides for the acquisition of conceptions of "truth," which are workable under any considerable variety and complexity of conditions.

#### THE PHILOSOPHIC TRANSITIONS.

Now we see a predominance of the tough-minded characteristics—the tendency toward a new kind of monism, energetic or materialistic. The idealistic monism is less seriously entertained, and if here there is still a tendency to compromise, it is between dualism and materialistic or energetic monism. The more departments of learning there are to which we aggressively and successfully apply the check of experiential relations with objectives, the more pronounced will become the leaning toward the determinism of materialistic forces. So, as we travel from dogmatism to empiricism we also travel from idealistic monism through pluralism to materialistic monism; from free-willism, through limited determinism (James and Leuba) and compromise, to complete determinism; from anthropomorphic religion through pantheism to atheism; from ego-centric godhood through spiritism to extraverted ir-religion.

So also do we travel from intuitionism to behavioristic research; from metaphysics to philosophy. Here I use "metaphysics" in the sense of a process of *reading*

*principles* into the objective; that is, we objectivize the intellectualizations of cravings and concepts acquired by unconscious processes, and objectively unchecked speculation, or seeming *a priori* principles; so too, I am speaking of philosophy in the sense of *reading principles out of* the universe through the conscious coordination of the greatest convenient number of possible affect-objects; that is to say, philosophy is now viewed as a synthesis of the sciences. Each stage in these developments is determined by the degree of our evolution in the changing attitude toward and emphasis upon relation with objectives, and the consequent kind of multiplicity and complexity of the affect-objects which we have synthetized in the formation of our character, or temperament, if you prefer. In this sense, then, it is true that temperaments (degrees of extraversion) determine our philosophy.

#### THE IDEALIZATION OF THE SCIENTIFIC METHOD.

Out of these classes, whose various characteristic attitudes toward facts have been briefly outlined, we can see a growth toward a theoretical fifth class of attitude toward "facts" which belongs to the future, for even an approximate realization. This grows out of a large consciousness of relationship not only of the individual to the objective but also of interobjective relations. Now we approach the condition in which the individual extends to his *every* impulse, opinion, hypothesis and concept that same aggressive desire to check and justify by the largest possible experience, just as the best sort of scientific specialist now does within his chosen specialty.

Now there may be a transfer of our greatest interest and energy from the prenatal or earliest infantile state of a wholly ego-centric attention, to an approximation toward wholly objective concentration of interest and attention, so thoroughly objective as always to include the subjective,

and the whole of the previous affect-objects, as a conscious part of the objectively considered materials. As we approach this latter attitude toward facts, the energetic materialistic and the deterministic aspect of the universe tend to become more exclusive of the others. There are no more predispositions of infantile cravings for ego-centric godhood to compromise with.

Now our emphasis will be upon the interrelations of objectives as a still higher development. From this emphasis upon the understanding of relations there naturally comes corresponding emphasis upon the method of considering experiences. Now evolves the formulation, perfection and higher emphasis on the scientific method.

#### TOWARD EGO-CENTRIC PANTHEISM.

If we could actually enter into conscious relations with every part and aspect of the universe, and so achieve one all-inclusive synthetic affect-object; that is, if we could actually know *all* the "facts" of the universe the relative accuracy of our concepts would have reached an identity with reality and we would indeed be omniscient. Including all within our consciousness, we ourselves would be the pantheistic universe, and the distinction between subjective and objective would have disappeared. While this apparently cannot be realized, the natural forces seem to compel us to travel in that direction, and we might as well insure the best adjustment to the inevitable by consciously, and, as far as may be, consistently, holding the unattainable ideal as our goal, and as near as may be persist in striving toward it and always attempting the use of the whole scientific method, in every expenditure of energy.

In consequence we will see that our concepts approach a relatively greater accuracy, as transcripts of reality, just to the degree that our craving for multiplicity and coordination of affect-objects becomes realized and our ability



as efficient observers grows, by the aid of the whole best scientific method. Here we have the ideal of the scientific method (and its eternal open-mindedness) according to its highest development in the physical sciences, the application of which is now sought, not only to the specialty of the scientist, for in the more advanced stages of development it will approach an automatic application, as a check to every craving, aversion, impulse, and intellectual activity.

#### GLIMPSING THE EVOLUTION OF PHILOSOPHY.

In the evolution of this radical activity of the universe as manifested in the human focus, we appear first to become conscious of the fact of consciousness. In the intellectualization, or efforts at explaining causation, we gradually become conscious of an objective and then of two elements or aspects of the objective, force and matter. Then still later we discover these two aspects of the objective reflected, or as present within ourselves. That is, we seem to see energy in the movement and change of consciousness and we seem to see matter as the antithesis of thought, so we have come to think of brain as the carrier of thought force.

Those who suffer from repression, or inefficient expenditure of their energies, are prone to acquire an exaggerated consciousness of the force-aspect of things in comparison to the consciousness of its co-related material-aspect, or carrier. In consequence of this they tend to all those characteristics ascribed by Professor James to the tender-minded type. That is to say, they exalt the vital-force aspect of brain functioning and therefore are lured by metaphysics, *a priori* principles, deductive methods and the philosophy of idealistic monism.

Those who by their method of energy-expenditure acquire the wider knowledge and craving for relations with objectives, will develop more or less the characteristics de-

scribed by James as belonging to the tough-minded, and will tend to emphasize the materialistic and deterministic aspect of things.

The tender-minded, by projecting into the universe their exaggerated conception of the immaterial thought-aspect of ultimate reality, tend to view the universe as immaterial forces, or as a creation of mind. By their relative aversion to contact with the material aspect of objectives, they fail to correct, or outgrow and supplement their idealistic concepts.

The tough-minded ones, pursuant to their craving for experience in relation with the objective, will tend to manifest that development by emphasis upon the matter-aspect of the ultimate reality, and in explanation or justification such persons tend to irreligion, induction and materialistic monism.

#### TOWARD THE LARGER SYNTHESIS.

We do not know forces in themselves. We know only a little of their behavioristic manifestations under some special conditions. We know nothing of matter in itself. We know only some of its behavioristic manifestations. Again we know nothing of the existence of behavior of either matter or force as an independent thing. These facts, viewed in the light of our knowledge of the trend of mental evolution toward a more perfect synthesis and more comprehensive unity, point to the conclusion that matter and force are but different aspects of the same unitary ultimate reality.

We tend to think of this ultimate unity as force whenever our attention is most focused upon its movements. We tend to think of it as matter whenever the movements approach the limits of our sensibility or are too fine for our discernment. That is, the ultimate unity tends to be thought of as matter whenever we think of it as relatively or abso-

lutely static, and we tend to think of it as energy when it is thought of as being in motion. So we come to the conclusion that static force is matter, and matter in motion is force. Since neither is known in the absolute, or separately from the other, we come to the conclusion that these concepts are but incomplete views of the same thing, the incompleteness of the view resulting in varying emphasis upon different aspects which seem conflicting but really are parts of the one ultimate reality.

But we think of this ultimate unity at all only when its relations to the knowing mind are sufficiently acute to register as consciousness; that is when one or both of the dualistic aspects of the things known enter into relation with the knowing mind. Here again we are face to face with the same dual aspects of things. One part or aspect of this knowing mind we call "brain," "nerves" etc., that is, we think of it as matter. Another part or aspect of the knowing mind we call "thought," "spirit" or "soul," because we are thinking of it as dynamic, as change. But this last is always manifested in change of mental states, that is, in action. The material part or brain is the mind-force, thought of as static. Thinking is the brain-matter in action. So here we come again to that prospect, where the "soul" is the force-aspect of matter and brain is the static aspect of force, and both are but different aspects of an ultimate entity, in itself as yet unknowable.

Thus I am led to another dualism within a dualism, common alike to the knowing mind and the thing known; the subjective presenting the same inseparable aspects of force and matter (thought and brain) as we have discovered existent in the objective. At moments of most acute or clear states of consciousness we can see that this inseparability of different aspects obtains with equal certainty at the approaches to a relative state of unconsciousness. So

we may infer that they exist everywhere quite independent of our consciousness of them.

Now comes the suggestion that the ego (brain and thought), and the objective (matter and force) are again each but different aspects of the same universal and ultimate entity, and thus we reach a synthetic view which includes both the idealistic and the materialistic.

The seeming distinction between subjective and objective may mean only that a portion of the ultimate entity, which we arbitrarily segregate from the rest and call the ego, is viewed in its force-aspect and in relation with the rest of the ultimate reality which is viewed in its static, that is matter-aspect. Thus it may be that even the distinction between subjective and objective is largely an illusion, based upon mere differences of emphasis as between the energy-aspect of the ego part of the ultimate entity, thought of as in contrast with the relatively static aspect of another portion of that same ultimate entity, called the objective. The line of separation now becomes as arbitrary as that between the vegetable and animal kingdoms.

A particular subjective and a particular objective must now be considered as but different yet related foci in the distribution of the universal ultimate reality, perhaps distinguished according to a varying quantity, density, intensity, activity and consciousness, yet all one in kind. Then in consciousness *all* is related and the very distinction between the subjective and objective disappears. In the infinitude of affect-objects, that is when we achieve the theoretic, pantheistic omnipotence, all is one. In this synthetic view of these aspects and contrasts we get glimpses of a unity and a pan-monism which perhaps will be seen to include all the philosophies and all the sciences. With this hint I must rest for the present.

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